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EXAMINER

PHAM, TIMOTHY X

ART UNIT

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2617

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/580,555	<b>Applicant(s)</b> FERRATO ET AL.	
	<b>Examiner</b> TIMOTHY PHAM	<b>Art Unit</b> 2617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 22-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/29/2010 has been entered.

Claims 22-42 are pending in this application.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 42 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. This claim is drawn to a “program for an electronic computer, loadable into the memory of at least one electronic computer” comprising program codes and stored data. In the state of the art, transitory signals are commonplace as a medium for transmitting computer instructions and thus, in the absence of any evidence to the contrary and given the broadest reasonable interpretation, the scope of a “program is capable of being executed by electronic computer” covers a signal per se. A transitory signal does not fall within the definition of a process, machine, manufacture, or a composition of matter; therefore, claim 42 does not fall within a statutory category.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 22-25 and 32-52 are rejected under 35 U.S.C. 102(e) as being participated by Oates (US 2004/0111502).

Regarding claims 22 and 36, Oates discloses a method and a simulation equipment for evaluating the performance of a mobile telephone network, the method comprising the steps of:

simulating a first configuration of said mobile telephone network (Fig. 2 reference 207; paragraph [0030]-[0031], [0034], [0038]; [0077]; e.g., when the first network simulator 207 operates on its modified traffic profile 201<sub>3,207</sub>);

simulating a second configuration of said mobile telephone network (Fig. 2, reference 211; paragraph [0031], e.g., the second network simulator 211 receives input from both the second traffic profile 201<sub>2,211</sub>),

said first and second configurations of said mobile telephone network being statistically independent of each other (paragraphs [0034], [0077], e.g., the first network simulator 201<sub>3,207</sub> is likely to be different to that of the second network simulator 201<sub>3,211</sub>),

each of said simulation steps comprising the steps of: specifying a total number of users to be simulated (Fig. 2, reference 201; Fig. 3 reference S3.1; paragraphs [0029]; e.g., a first traffic profile 201<sub>1,207</sub>),

determining a sequence of activation of user blocks included in said total number of users to be simulated (paragraphs [0029], [0034], e.g., Each traffic profile comprises one or more network events, such as "set up call between node 1 and node 2 at 09:05"; it is noted that set up call at particular time characterizes as a sequence of activation of user),

activating said user blocks in succession until said total number of users to be simulated is reached, each user block indicating a traffic distribution (paragraphs [0063], [0071], e.g., If the original population size P has been restored the process proceeds to step S 6.13 whereupon it is determined whether the maximum number of generations G has been reached), and

processing at least one radio resource management event relating to the traffic distribution associated with each currently activated user block (paragraphs [0026], [0029], [0039], e.g., The network parameters 203 include network routing and bandwidth variables and are described in greater detail below. In the following description a traffic profile is identified as  $201_{i,j}$  where i indicates an instance of a traffic profiles, and j indicates a network simulator that the  $i_{th}$  instance applies to); and

processing jointly statistical results generated using each of said simulation configurations (paragraphs [0030], [0032], [0033], [0066]; claim 1; e.g., At step S 5.4, this record is sent to estimator 213, which combines these times in order to generate a corresponding QoS. QoS is a response value that quantifies the efficiency of the network to respond to the network events).

Regarding claim 23, Oates discloses the method of evaluating according to claim 22, comprising the step of:

repeating said steps of simulating said mobile telephone network until a predetermined accuracy threshold is reached for each simulated network value (paragraphs [0036], [0063], [0067], e.g., the optimisation process is repeated for a predetermined number of evaluations, and whichever parameter set outputs the highest QoS (thus lowest circuit restoration time) is assigned to optimised network parameters).

Regarding claim 24, Oates discloses the method of evaluating according to claim 22, wherein each activated user block comprises at least one user (paragraph [0029], e.g., Each traffic profile comprises one or more network events, such as "set up call between node 1 and node 2 at 09:05"; it is noted that each setup call is representing as one user).

Regarding claims 25 and 37, Oates discloses the method and the simulation equipment of evaluating according to claims 22 and 36, wherein said step of processing at least one radio resource management event comprises the step of: executing at least one radio resource management algorithm (paragraphs [0040], [0091]).

Regarding claim 32, Oates discloses the method of evaluating according to claim 23, wherein said step of repeating said steps of simulating said mobile telephone network comprises: a step of collecting and processing statistical results (paragraphs [0030], [0032], [0066]-[0067]); and a step of checking the accuracy of the resulting statistical data (paragraphs [0030], [0032], [0066]-[0067]; e.g., it is noted that the optimisation procedure is performed by all statistical resulting data).

Regarding claim 33, Oates discloses the method of evaluating according to claim 32, wherein said step of collecting and processing statistical results comprises the steps of: collecting statistical results relating to simulated network values (paragraphs [0063], [0066], [0071]; e.g.,

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distribution of network events); and obtaining at least one accuracy indicator for each of said simulated network values (Claim 1, e.g., indicative of the success of the simulated event).

Regarding claim 34, Oates discloses the method of evaluating according to claim 33, wherein said at least one accuracy indicator comprises at least one parameter selected from the confidence interval of a statistical value and the stability indicator of a statistical value (paragraphs [0066]-[0067]; Claim 1, e.g., indicative of the success of the simulated event).

Regarding claim 35, Oates discloses the method of evaluating according to claim 32, wherein said step of checking the accuracy of the resulting statistical data comprises the steps of:

comparing, for each simulated network value, said at least one accuracy indicator with the corresponding predetermined accuracy threshold (paragraphs [0006], [0078], [0086]; claim 1; e.g., comparing the first and second quantified performance values with a predetermined performance value and identifying which of the first or second quantified performance values most closely resembles the predetermined performance value); and

terminating the simulation when said at least one accuracy indicator reaches said predetermined accuracy threshold (paragraphs [0071], [0077]).

Claim 38 is rejected with the same reasons set forth to claims 23-24.

Claim 39 is rejected with the same reasons set forth to claim 27.

Claim 40 is rejected with the same reasons set forth to claims 28-31 .

Claim 41 is rejected with the same reasons set forth to claims 32-35.

Claim 42 is drawn to a program for an electronic computer, loadable into the memory of at least one electronic computer and comprising code means for generating steps of claims 22-

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35. Therefore, the same rationale applied to claims 22-35 applies. In addition, Oates inherently discloses a computer program product, i.e., given that Oates discloses a process, the process would be implemented by a processor that requires a computer program product, e.g., a RAM, to function.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oates in view of Leila Zurba Ribeiro (hereinafter "Leila"; Cited in PTO-892 Part of Paper No. 20090617).

Regarding claim 26, Oates discloses the method of evaluating according to claim 25, fails to specifically disclose wherein said radio resource management algorithm comprises an admission control algorithm.



However, Leila discloses wherein said radio resource management algorithm comprises an admission control algorithm (page 43, section 4.3.1, e.g., admission control).

Therefore, taking the teachings of Oates in combination of Leila as a whole, it would have been obvious to one having ordinary skill in the art at the time of the invention by applicant to have radio resource management algorithm comprises an admission control algorithm for advantages of preventing unpredictability of individual flow's behavior that occur during simulations on a wide variety of network topologies and driven with various source models.

Regarding claim 27, Oates in combination with Leila discloses the method of evaluating according to claim 26, comprising the steps of:

detecting that at least one admission control threshold has been exceeded for at least one of the users belonging to the currently activated user block (page 171, section 7.2.2); and

taking said user out of service (page 171, section 7.2.2, e.g., it then accepts or rejects the request service (RABs) depending on specified acceptance thresholds).

Therefore, taking the teachings of Oates in combination of Leila as a whole, it would have been obvious to one having ordinary skill in the art at the time of the invention by applicant to detect that at least one admission control threshold has been exceeded for at least one of the users belonging to the currently activated user block and taking user out of service for advantages of preventing unpredictability of individual flow's behavior that occur during simulations on a wide variety of network topologies and driven with various source models.

Regarding claim 28, Oates discloses the method of evaluating according to claim 25, fails to specifically disclose wherein said radio resource management algorithm comprises a congestion control algorithm.

However, Leila discloses radio resource management algorithm comprises a congestion control algorithm (page 171, section 7.2.2).

Therefore, taking the teachings of Oates in combination of Leila as a whole, it would have been obvious to one having ordinary skill in the art at the time of the invention by applicant to have radio resource management algorithm comprises a congestion control algorithm for advantages of preventing unpredictability of individual flow's behavior that occur during simulations on a wide variety of network topologies and driven with various source models.

Regarding claim 29, Oates in combination with Leila discloses the method of evaluating according to claim 28, comprising the steps of:

detecting that at least one congestion control threshold has been exceeded for at least one of the users belonging to the currently activated user block (Leila: page 171, section 7.2.2); and

taking said user out of service (Leila: page 171, section 7.2.2).

Therefore, taking the teachings of Oates in combination of Leila as a whole, it would have been obvious to one having ordinary skill in the art at the time of the invention by applicant to detect that at least one admission control threshold has been exceeded for at least one of the users belonging to the currently activated user block and taking user out of service for

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advantages of preventing unpredictability of individual flow's behavior that occur during simulations on a wide variety of network topologies and driven with various source models.

Regarding claim 30, Oates discloses the method of evaluating according to claim 25, fails to specifically disclose wherein said radio resource management algorithm comprises an outage control algorithm.

However, Leila discloses radio resource management algorithm comprises an outage control algorithm (page 51, section 5.1.1; page 53, e.g., while in static simulation outage is defined as the event of the C/I ration falling bellow a certain threshold).

Therefore, taking the teachings of Oates in combination of Leila as a whole, it would have been obvious to one having ordinary skill in the art at the time of the invention by applicant to have radio resource management algorithm comprises an outage control algorithm for advantages of preventing unpredictability of individual flow's behavior that occur during simulations on a wide variety of network topologies and driven with various source models.

Regarding claim 31, Oates in combination with Leila discloses the method of evaluating according to claim 30, comprising the steps of:

detecting that at least one congestion control threshold has been exceeded for at least one of the users belonging to the currently activated user block (Leila: page 171, section 7.2.2); and

taking said user out of service (Leila: page 171, section 7.2.2).

Therefore, taking the teachings of Oates in combination of Leila as a whole, it would have been obvious to one having ordinary skill in the art at the time of the invention by applicant

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to detect that at least one admission control threshold has been exceeded for at least one of the users belonging to the currently activated user block and taking user out of service for advantages of preventing unpredictability of individual flow's behavior that occur during simulations on a wide variety of network topologies and driven with various source models.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIMOTHY PHAM whose telephone number is (571)270-7115. The examiner can normally be reached on Monday-Friday; 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne D. Bost can be reached on 571-272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Timothy Pham/  
Examiner, Art Unit 2617

/Nghi H. Ly/  
Primary Examiner, Art Unit 2617